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INTELLIGENCE BRIEF

SHARP INCREASES IN CHINESE COMMUNIST IMPORTS
OF PRECISION MACHINE TOOLS FROM THE FREE WORLD

DIRECTORATE OF INTELLIGENCE
Office of Research and Reports

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SHARP INCREASES IN CHINESE COMMUNIST IMPORTS
OF PRECISION MACHINE TOOLS FROM THE FREE WORLD

Recent trade returns and announced Chinese Communist orders of machine tools in Western Europe and Japan point up the slow but continuing industrial recovery of China and the increasing requirements for its defense program. In 1964, China's imports of metalcutting machine tools from principal non-Bloc suppliers were valued at \$6.3 million, almost six times those in 1963; imports of machine tools from Bloc nations have been reduced to a trickle over the last several years. Orders placed recently in Western Europe and Japan indicate that similar large increases will be posted in 1965 and 1966. Significantly, Chinese purchases are composed almost totally of precision and specialized types of machine tools which the Chinese either are not reasonably capable of manufacturing or are not able to produce in the required quantities. Although most of these tools have both strategic and nonstrategic end uses, a large share probably is destined for, or in support of, defense industries. The COCOM embargo on machine tools with explicit military end uses has not been totally effective in preventing China's defense industries from receiving machine tools with important strategic end uses. China has purchased from Western Europe and Japan many machine tools with important defense industry applications which are not covered by the terms of the embargo. In addition, items embargoed by COCOM have also been imported from Switzerland -- a nonparticipant in COCOM.

1. Chinese Imports of Machine Tools

In 1964, Communist China's imports of machine tools from principal non-Bloc suppliers were almost six times those of 1963. Although the actual amount of machinery involved is still small, the purchases point up the slow but continuing industrial recovery of China and the increasing requirements of its defense program. Furthermore, reports of Chinese orders recently placed in Western Europe and Japan indicate that imports in 1965 and 1966 will be considerably higher than in 1964 (see the table). A Japanese machine tool builder expects that Japanese exports to China will reach \$1.3 million in 1965.

It is believed that Bloc sources have supplied comparatively few machine tools to China in the past few years. In 1963 the USSR is known to have sold only six metalcutting machine tools to China, and Poland to have sold only one. While it is likely that the Chinese will show a moderately increased volume of machine tool imports from the Bloc in future years, barring a change in intra-Communist politics, this volume will probably not approach the very high pre-1960 levels, and China will probably continue to satisfy its needs for machine tool imports in the West.

The West is able to supply the high quality that China demands in the shortest possible time and with a minimum of bureaucratic delays. Although they are generally more expensive, Western machine tools are more reliable and durable than their Bloc counterparts.

Chinese Imports of Metalcutting Machine Tools
from Selected Countries
1963-64

	Thousand US \$	
	<u>1963</u>	<u>1964</u>
West Germany	523	2,594
Switzerland	172	1,440
UK	288	1,663
Japan	112	614
Total	<u>1,095</u>	<u>6,311</u>

China is capable of producing nearly all of its current requirements for general-purpose machine tools. These machines, when equipped with special tooling, adequately fulfill most of China's present industrial needs. In addition, because excess capacity exists in the industry today, the Chinese can continue to meet their requirements for general-purpose machine tools for the next few years without significant expansion of existing facilities. However, China is able to produce very few precision or specialized machine tools; most models are still in the prototype stage. These types are important to both future industrial growth and the production of military goods, including advanced weapons.

Significantly, China's purchases of machine tools in the Free World are composed almost solely of precision and specialized types. The USSR is willing to import machine tools which it is fully capable of manufacturing but requires in quantities too small to be produced economically. On the other hand, China's imports are composed almost totally of the types of machine tools that it is not reasonably capable of producing itself or is unable to produce in the required quantities.*

* These types include jig borers; heavy-duty horizontal boring and milling machines; die-sinking machines; tracer-controlled milling machines; gear grinders; large gear hobbers and shapers; bevel gear machines; fine pitch precision gear machines; high-speed internal grinders; centerless, surface, and cylindrical grinders; crankshaft lathes; and precision measuring and testing equipment.

Nearly all have uses both in nonstrategic industries and in defense industries. However, considering the high priority of the defense industry and its requirements for these types of machine tools, it is likely that most are intended directly for, or in support of, defense industries.

2. Effects of the COCOM Embargo

The COCOM embargo list for machine tools includes only types that have very explicit military end uses. Therefore it permits the sale of many machine tools which could be used in civilian production but which also have important military applications. Thus China has been and will continue to be able to satisfy most of its requirements for machine tools for defense industries in the West with relative ease.

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In addition, China has also received from the West machine tools that are covered by the COCOM embargo.

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COCOM restrictions are subject to "interpretation" by the participating nations, particularly in regard to end use. For this reason, identification of clear violations is difficult. Generally, most participants have interpreted the rules more liberally than the US.

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Although the COCOM embargo has not completely denied embargoed machine tools to China, it has undoubtedly limited the magnitude of the flow of listed machines. Cases are known in which Western nations have denied China fine pitch precision gear machines, high-speed internal grinders, and numerically controlled machine tools. However, the acquisition of even a very few embargoed machines enables the Chinese to eliminate critical bottlenecks in high-priority defense areas. Difficulties with enforcement of the embargo, possible future revisions of the embargo list, more liberal interpretations by Western nations, and shipments from nations that do not participate in the embargo agreement will enable China to continue to receive a limited quantity of embargoed machine tools in the future.

Analyst:

Coord:



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9 September 1965

MEMORANDUM FOR: Chief, Dissemination Control Branch, DD/CR
FROM : Acting Chief, Publications Staff, ORR
SUBJECT : Transmittal of Material

It is requested that the attached copies of CIA/RR CB 65-49, Sharp Increases in Chinese Communist Imports of Precision Machine Tools from the Free World, September 1965, Secret/NO FOREIGN DISSEM, be forwarded as follows:

State, INR Communications Center,
Room 6527, State Dept. Bldg.
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Attachments:

Copies #196 - #212 of CB 65-49

cc: CDS/RB

ACTION COMPLETED

The dissemination requested by
this memorandum has been completed.

BY: *[Signature]*
Date: *22 Sep 1965*

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